No. 200200160

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Monsanto Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE VARIETY. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'Jagalene'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this sixteenth day of September, in the year two thousand two.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

Local Reproduction of FORM - OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the privacy Act of 1974 (5 U.S.C. 552a)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421) Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*
Monsanto Company

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER
W98-362

3. VARIETY NAME
Jagalene

4. ADDRESS *(Street and No. or R.F.D. No., City, State, and Zip Code)*
700 Chesterfield Parkway North
St. Louis, Missouri 63198

5. TELEPHONE *(include area code)*
636-737-6089

PVPO NUMBER
200200160

6. FAX *(include area code)*
636-737-7250

FILING DATE
5/23/2002

7. GENUS AND SPECIES NAME
Triticum aestivum

8. FAMILY NAME *(Botonical)*
Gramineae

FEES RECEIVED
FILING AND EXAMINATION FEE:
2705.00
DATE
5/23/2002

9. CROP KIND NAME *(common name)*
Hard Red Winter Wheat

CERTIFICATION FEE
320.00
DATE
7/5/02

10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association,etc.) (common name)*
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
Delaware

12. DATE OF INCORPORATION
1933

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

Ms. Sally Metz
700 Chesterfield Parkway North
St. Louis, Missouri 63198

AND

Dr. Rollin Sears
6515 Ascher Road
Junction City, Kansas 66441

14. TELEPHONE *(include area code)*
636-737-6089

15. FAX *(include area code)*
636-737-7250

16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(follow instructions on reverse)*

- a. [X] Exhibit A. Origin and Breeding History of the Variety
- b. [X] Exhibit B. Statement of Distinctness
- c. [X] Exhibit C. Objective Description of the Variety
- d. [X] Exhibit D. Additional Description of the Variety
- e. [X] Exhibit E. Statement of the Basis of the Applicant's Ownership
- f. [X] Voucher Sample *(2,500 viable untreated seeds, or, for tuber propagated varieties veification that tissue culture will be deposited and maintained in a public repository)*
- g. [X] Filing and Examination Fee *($2,450)*, made payable to "Treasurer of the United States" *(Mail to PVPO)*

17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*

[X] YES *(if "yes", answer items 18 and 19 below)* [ ] NO *(if 'no", go to item 20)*

18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

[ ] YES [X] NO

19. IF 'YES' TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDERS SEED?

[ ] FOUNDATION [ ] REGISTERED [ ] CERTIFIED

20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?

[ ] YES *(iF "YES", give names of countries and dates)* [X] NO

21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT (Owner(s))		SIGNATURE OF APPLICANT (Owner(s))	
Sally Metz			
NAME *(Please print or type)* Sally Metz		NAME *(Please print or type)*	
CAPACITY OR TITLE Director Wheat Technology	DATE April 29, 2002	CAPACITY OR TITLE	DATE

SD-470 (04-95)

(See reverse for instructions and information collection burden statement)

Exhibit A.
Origin and Breeding History of Jagalene

The cross involving Abilene/Jagger was made in 1994 in the greenhouse at Berthoud, CO. and designated 94x1054. F_1 plants were grown in the greenhouse and F_2 seed planted at Nardin, OK in 1996. The F_2 plot was harvested in bulk because of short plant height and better disease resistance, cleaned with a gravity table and the F_3 seed spaced planted at Berthoud during the fall of 1997. During the spring of 1998 individual space plants were selected based upon plant height, stem strength, head size and yield potential. The F_4 row was designated 97PRY1 151-163 and planted in observation trials throughout Kansas, Oklahoma and Nebraska. Based upon improved disease resistance, short plant height and good test weight patterns the line was selected for yield trials and designated W98-362. In 1999 W98-362 was tested in advanced yield trials at 6 locations. In 2000 the line was tested in elite trials at 14 locations and in 2001 W98-362 was tested 18 locations in the southern Great Plains. In 1999 48 head rows were evaluated for uniformity and plant type, 12 rows were harvested and grown as initial breeders seed. From this increase 6 small plots were bulked to form the breeders seed of W98-362 (Jagalene).

Jagalene has been uniform and stable since 2000. Less than 0.8% of the plants were rogued from the Breeders seed increase in 2001. Approximately 87% of the rogued variant plants were taller height wheat plants (8 to 15 cm) and approximately 3% were awnletted wheat plants. Up to 1% variant plants may be encountered in subsequent generations.

Exhibit B.
Statement of Distinctness

Jagalene is most similar to the hard red winter wheat 'Abilene'. However, it can be easily distinguished by the following morphological characteristics:

- Jagalene has a medium glume width, (Berthoud, CO 2000 and 2001). Abilene has a narrow shoulder on the glume, (Berthoud, CO 2000 and 2001).

- Jagalene has a long glume length, (Berthoud, CO 2000 and 2001). Abilene has a medium glume length, (Berthoud, CO 2000 and 2001).

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY

WHEAT (*Triticum* Spp.)

NAME OF APPLICANT(S)	FOR OFFICIAL USE ONLY
Monsanto Company	PVPO NUMBER **200200160**
ADDRESS (*Street and No. or R.F.D. No., City, State, and Zip Code*) **700 Chesterfield Parkway North** **St. Louis, Missouri 63198**	NAME OR EXPERIMENTAL DESIGNATION ***Jagalene***

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in the first box when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized standard may be used to determine plant colors; designate system used.
Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

[1] 1=Common 2=Durum 3=Club 4=Other (*specify*) _____

2. VERNALIZATION:

[2] 1=Spring 2=Winter 3=Other (*specify*) _____

3. COLEOPTILE ANTHOCYANIN:

[1] 1=Absent 2=Present

4. JUVENILE PLANT GROWTH:

[2] 1=Prostrate 2=Semi-erect 3=Erect

5. PLANT COLOR (*boot stage*):

[3] 1 = Yellow-Green 2 = Green 3 = Blue-Green

6. FLAG LEAF (*boot stage*):

[1] 1 = Erect 2 = Recurved

[2] 1 = Not Twisted 2 = Twisted

7. EAR EMERGENCE:

[0][0] Number of Days Earlier Than _____ *

[0][3] Number of Days Later Than **Jagger** *

8. ANTHER COLOR:

[1] 1 = YELLOW 2 = PURPLE

9. PLANT HEIGHT (*from soil to top of head, excluding awns*):

[0][0] cm Taller Than _____ *

[0][5] cm Shorter Than **Jagger** *

* Relative to a PVPO-Apprved Commercial Variety Grown in the Same Trial

10. STEM:

A. ANTHOCYANIN

[1] 1= Absent 2=Present

B. WAXY BLOOM

[2] 1=Absent 2=Present

C. HAIRINESS (*last internode of rachis*)

[2] 1=Absent 2=Present

D. INTERNODE (*specify number*) _____

[1] 1=Hollow 2=Semi-solid 3=Solid

E. PEDUNCLE

[1] 1=Erect 2=Recurved

[2][6] cm Length

11. HEAD (*at Maturity*):

A. DENSITY

[2] 1=Lax 2=Middense 3= Dense

B. SHAPE

[2] 1 = Tapering 2= Strap 3 = Clavate 4 = Other (*specify*) _____

C. CURVATURE

[2] 1 = Erect 2 = Inclined 3 = Recurved

D. AWNEDNESS

[4] 1 = Awnless 2 = Apically Awnletted 3 = Awnletted 4 = Awned

12. GLUMES (*at Maturity*):

A. COLOR

[1] 1 = White 2 = Tan 3 = Other (*specify*) _____

B. SHOULDER

[2] 1 = Wanting 2 = Oblique 3 = Rounded 4 = Square 5 = Elevated 6 = Apiculate

C. BEAK

[3] 1 = Obtuse 2 = Acute 3 =Acuminate

D. LENGTH

[3] 1 = Short (ca. 7mm) 2 = Medium (ca. 8mm) 3 = Long (ca. 9mm)

E. WIDTH

[2] 1 = Narrow (ca. 3mm) 2 = Medium (ca. 3.5mm) 3 = Wide (ca. 4mm)

13. SEED:

A. SHAPE

[1] 1 = Ovate 2 = Oval 3 = Elliptical

B. CHEEK

[1] 1=Rounded 2=Angular

C. BRUSH

[2] 1=Short 2=Medium 3=Long

[1] 1 = Not Collared 2 = Collared

D. CREASE

[1] 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

[1] 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

13. SEED: (continued)

E. COLOR

[2] 1 = White 2 = Amber 3 = Red 4 = Other (*specify*) _____

F. TEXTURE

[1] 1=Hard 2=Soft

G. PHENOL REACTION (*see instructions*):

[0] 1 = Ivory 2 = Fawn 3 = Light Brown 4 = Dark Brown 5 = Black

14. DISEASE: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant) 5=moderately resistant 6=moderately susceptible

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

[2]	Stem Rust (*Puccinia graminis* f. sp. *tritici*) Field races	[2]	Leaf Rust (*Puccinia recondita* f. sp. *tritici*) Field races
[0]	Stripe Rust (*Puccinia striiformis*)	[0]	Loose Smut (*Ustilago tritici*)
[3]	Tan Spot (*Pyrenophora tritici-repentis*)	[0]	Flag Smut (*Urocystis agropyri*)
[0]	Halo Spot (*Selenophoma donacis*)	[0]	Common Bunt (*Tilletia tritici or T. laevis*)
[0]	*Septoria nodorum* (Glume Blotch)	[0]	Dwarf Bunt (*Tilletia controversa*)
[0]	*Septoria avenae* (Speckled Leaf Disease)	[0]	Karnal Bunt (*Tilletia indica*)
[5]	*Septoria tritici* (Speckled Leaf Blotch) Field races	[6]	Powdery Mildew (*Erysiphe graminis* f. sp. *tritici*) Field races
[0]	Scab (*Fusarium* spp.)	[0]	Snow Molds
[0]	Black Point (Kernel Smudge)	[0]	Common Root Rot (*Fusarium, Cochliobolus* and *Bipolaris* spp.
[0]	Barley Yellow Dwarf Virus (BYDV)	[0]	Rhizoctonia Root Rot (*Rhizoctonia solani*)
[2]	Soilborne Mosaic Virus (SBMV) Field races	[0]	Black Chaff (*Xanthomonas campestris* pv. *translucens*)
[0]	Wheat Yellow (Spindle Streak) Mosaic Virus Field races	[0]	Bacterial Leaf Blight (*Pseudomonas syringae* pv. *syringae*)
[5]	Wheat Streak Mosaic Virus (WSMV) Field races	[ ]	Other (*specify*)
[5]	Other (*specify*) Spindle streak mosaic virus (SSMV)	[ ]	Other (*specify*)
[ ]	Other (*specify*)	[ ]	Other (*specify*)
[ ]	Other (*specify*)	[ ]	Other (*specify*)

15. INSECT: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

1	Hessian Fly (*Mayetiola destructor*)	1	Other (*specify*) Wheat Curl Mite
0	Stem Sawfly (*Cephus* spp.)		Other (*specify*)
0	Cereal Leaf Beetle (*Oulema melanopa*)		Other (*specify*)
1	Russian Aphid (*Diuraphis noxia*)		Other (*specify*)
1	Greenbug (*Schizaphis graminum*)		Other (*specify*)
0	Aphids		

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:

Exhibit D.
Additional Description of Jagalene

Jagalene is a hard red winter wheat bred and developed by AgriPro Wheat. Jagalene is semidwarf in plant height and has white chaff at maturity. It has medium maturity and excellent straw strength. Jagalene is resistant to Stem Rust, Leaf Rust and Soil Borne Wheat Mosaic Virus. It is moderately resistant to Speckled leaf blotch, Wheat Spindle Streak Mosaic Virus and Wheat Streak Mosaic Virus. Jagalene has an intermediate reaction to Tan spot and is moderately susceptible to Powdery Mildew. Jagalene is susceptible to Hessian Fly and the wheat curl mite.

Juvenile growth habit is semierect. Plant color at boot stage is blue green. Auricle anthocyanin and auricle hairs are present. Flag leaf at boot stage is erect and twisted. Waxy bloom is present on the head, stem and flag leaf sheath. Anther color is yellow. Head shape is strap and awned. Glumes are glabrous, medium in width and long in length with oblique shoulders and acuminate beaks. Seed shape is ovate. Brush hairs are medium in size. Seed crease depth is shallow and width is narrow. Seed cheeks are rounded.

Jagalene is adapted to the Great Plains states of Colorado, South Dakota, Nebraska, Kansas, Oklahoma and Texas.

AGRIPRO

Plains Team Quality Summary

Year-Loc	Wht Prot 14%mb	Flr Prot 14%mb	R	Norris Hard	Flr Yld %	R	Ash	Mixogram Peak Time min	Mixogram Peak HT N.U.	Mixogram Tol. mm	R	Mixogram Abs %	R	Baking Quality Mix Time min	R	Baking Quality Loaf Vol cc	R	Crumb Grain R	Crumb Tex R	Crumb Color R
JAGALENE																				
1998 - SK	12.0	10.7		84	73.0			3.75	5.0	1042		62.0		3.75		925		3	3	2
1999 - QK	12.3	11.0		73	71.7			5.00	5.3	965		62.0		5.00		845		4	2	2
2000 - EB	11.1	9.6		79	70.8			5.75	4.8	1150		60.0		5.50		890		4	3	3
2000 - VT	13.6	12.3		92	69.5		0.530	3.50	5.5	845		62.0		3.50		955		4	3	3
2000 -	14.2	12.8		80	67.3		0.450	3.75	5.3	1019		61.0		3.75		1035		4	3	3
2001 - DL	14.3	13.4		81	71.7		0.476	3.00	5.0	798		64.0		3.00		1045		4	3	3
2001 - DL	13.8	12.8		77	71.1		0.468	3.00	5.0	812		61.0		3.00		955		5	3	3
2001 - EB	12.5	11.3		70	69.6		0.442	3.75	4.5	1184		62.0		3.75		935		4	2	3
2001 -	12.3	11.2		75	71.9		0.492	3.25	4.8	1082		60.5		3.25		940		3	3	3
2001 - HP	12.3	11.2		74	70.6		0.474	3.75	5.0	833		60.5		3.75		975		4	3	4
2001 - JP	13.9	12.7		79	69.3		0.468	4.25	5.0	1140		66.0		4.50		1000		4	3	3
2001 - PD	13.8	12.8		76	70.5		0.442	4.00	5.0	879		63.0		4.00		1060		4	2	3
2001 - PD	13.5	12.5		78	70.7		0.436	3.50	5.0	940		62.0		3.50		950		3	3	3
2001 - VD	13.7	12.7		72	70.3		0.450	4.00	4.8	1022		62.0		3.75		1045		4	2	3
2001 - VD	11.9	10.8		66	70.1		0.434	3.25	4.8	1035		59.0		3.25		890		3	3	3
Average	**13.0**	**11.9**		**77**	**70.5**		**0.464**	**3.83**	**5.0**	**983**		**61.8**		**3.82**		**963**		**4**	**3**	**3**
JAGGER																				
1998 - SK	13.0	11.4		93	70.7			3.00	5.3	843		64.0		3.00		910		3	3	2
1999 - QK	13.1	11.7		59	69.3			4.75	5.5	976		62.0		4.75		805		4	3	2
2000 - EB	11.6	10.0		73	68.3			4.75	5.3	1038		61.0		4.75		855		3	3	3
2000 - VT	13.3	11.7		90	67.3		0.564	3.25	5.5	813		62.0		3.25		945		3	3	3
2000 -	15.8	14.8		80	65.3		0.494	3.50	5.8	798		63.0		3.75		1195		5	3	3
2001 - DL	14.9	14.0		72	72.4		0.456	3.00	5.3	592		64.5		3.00		940		3	3	3
2001 - DL	14.2	13.1		80	70.8		0.478	2.75	5.3	631		62.0		2.75		930		4	3	3
2001 - EB	12.6	11.3		59	67.8		0.388	3.75	5.0	934		62.0		3.75		900		4	2	4
2001 -	12.7	11.9		81	71.8		0.472	2.75	5.3	649		62.0		2.75		950		4	3	3
2001 - HP	12.7	11.6		71	68.2		0.484	2.75	5.5	619		60.0		2.75		1005		4	3	3
2001 - JP	12.9	11.9		69	68.7		0.380	4.00	5.0	998		62.5		4.00		915		3	3	3
2001 - PD	13.5	12.8		71	70.8		0.400	3.25	5.3	846		63.0		3.25		950		4	3	3
2001 - PD	14.1	13.3		75	70.8		0.420	3.25	5.3	787		63.0		3.50		950		3	3	3
2001 - VD	14.4	13.2		64	69.7		0.450	4.25	5.0	1108		62.0		4.25		955		3	4	3
2001 - VD	12.9	12.0		65	69.9		0.454	3.25	5.3	1032		61.0		3.25		895		3	3	3
Average	**13.4**	**12.3**		**73**	**69.5**		**0.453**	**3.48**	**5.3**	**844**		**62.3**		**3.52**		**940**		**4**	**3**	**3**

Ratings: 1-2=Excellent 3-4=Good 5-6=Acceptable 7-8=Questionable 9=Unacceptable

Three Year Summary for Yield (bu/a) of selected varieties tested in the AgriPro commercial hard red winter wheat testing program

Variety	EAST				West			
	1999	2000	2001	Average	1999	2000	2001	Average
Jagger	60	58	60	59	68	46	65	60
2137	52	52	53	52	65	44	54	54
Jagalene	59	65	56	60	69	51	69	63
Cutter	54	61	60	58	70	44	65	60
Dumas	55	63	51	56	64	47	58	56
Coronado	56	53	53	54	63	45	57	55
Hondo	48	49	52	50	*	*	*	*
Big Dawg	61	50	57	56	*	*	*	*
Thunderbolt	*	*	*	*	63	42	56	54
Ogallala	*	*	*	*	63	42	58	54

East, 1999 = Salina
East, 2000 = Salina, Nardin, Partridge
East, 2001 = Salina, Junction City, Everest, Partridge, Winfield

West, 1999 = Paxton, Quinter, Hugoton, Otis
West, 2000 = Paxton, Quinter, Hugoton, Goodland, Otis
West, 2001 = Paxton, Otis, Goodland, Manter, Hugoton

AgriPro Wheat comparison chart for agronomic, disease and insect reactions for currently grown hard winter wheats adapted to the Southern Plains. Rating range from 1 (excellent) to 9 (worst)

	Test Wt.	Straw S	rel. Mat.	Ht.	Col. Leng.	Shatter	WH	Al. Tol	Protein	Stem R	Leaf R	SBMV	SSMV	WSMV	S. trit	tan spot	PM	HF
HICKOCK	1	5	3	3	5	4	6	5	4	5	4	1	4	8	6	5	5	8
Dumas	3	2	5	3	5	4	5	8	5	3	3	7	7	6	4	3	5	8
PECOS	3	2	3	2	5	6	6	5	6	6	6	1	4	6	6	5	2	1
CORONADO	4	3	3	3	5	4	5	4	4	5	5	1	4	4	3	4	5	5
ORO BLANCO	3	3	3	3	5	5	5	6	5	4	7	1	4	5	4	4	7	8
ROWDY	3	2	4	2	5	5	6	8	4	3	2	7	6	4	6	5	3	9
TOMAHAWK	5	4	4	4	4	6	3	8	4	5	3	1	4	8	6	5	3	8
THUDERBOLT	2	4	4	4	3	5	3	8	5	7	1	7	5	3	2	3	6	8
LAREDO	4	4	4	3	4	5	4	8	4	4	3	5	5	6	7	6	3	8
OGALLALA	2	2	5	3	5	6	4	8	4	4	5	8	5	4	4	6	4	8
HONDO	3	5	6	4	4	4	3	3	5	4	2	1	1	4	3	4	2	8
LONGHORN	2	2	5	6	2(a)	6	3	7	5	4	4	8	5	4	3	6	4	8
THUNDERBIRD	2	2	5	5	2(a)	6	3	7	3	4	7	1	5	5	6	6	7	6
ABILENE	2	2	5	3	5	6	3	5	4	4	8	1	5	5	7	6	9	8
BIG DAWG	2	2	7	6	2	4	6	4	4	3	7	1	3	5	2	3	6	8
Jagalene	2	2	5	2	5	5	3	4	4	3	1	1	3	4	4	6	6	8
Cutter	3	5	5	5	5	5	5	4	5	3	1	3	3	4	4	4	5	8
JAGGER	5	5	2	4	4	6	6	4	3	5	8	1	4	4	3	4	7	8
TAM 107	5	4	2	4	4	4	3	8	7	6	9	8	9	4	7	8	1	8
CUSTER	3	3	4	3	5	3	6	8	5	4	5	7	7	5	6	4	2	8
2137	4	3	5	4	5	4	5	3	5	7	7	1	4	4	4	5	3	1
DOMINATOR	3	3	5	3	5	5	4	8	4	4	6	1	3	7	3	4	4	2
2174	4	4	4	4	5	5	5	3	5	6	5	1	4	7	4	5	2	9
TAM 110	2	4	2	4	4	4	4	8	7	4	9	9	9	5	7	7	1	9
AKRON	5	5	5	5	5	4	4	8	6	5	8	8	8	8	5	5	6	7
ALLIANCE	5	6	6	5	6	4	4	8	6	4	8	8	9	7	6	8	6	3
ARAPAHOE	5	7	7	6	5	4	3	8	5	3	5	6	9	8	6	7	6	2
Prairie Red	5	4	3	4	4	4	3	8	7	4	9	9	9	5	7	7	2	9
Trego	3	5	4	4	5	4	5	8	5	3	4	2	4	5	7	8	8	5

Ratings taken by John Moffatt, David Worrall and Rollin Sears, AgriPro Wheat winter wheat breeders

Hard Winter Wheat PROfile

AgriPro Variety 'Jagalene'

Abilene/Jagger

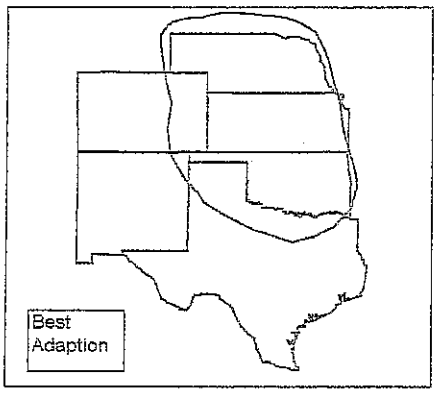
Excellent "all purpose" Wheat

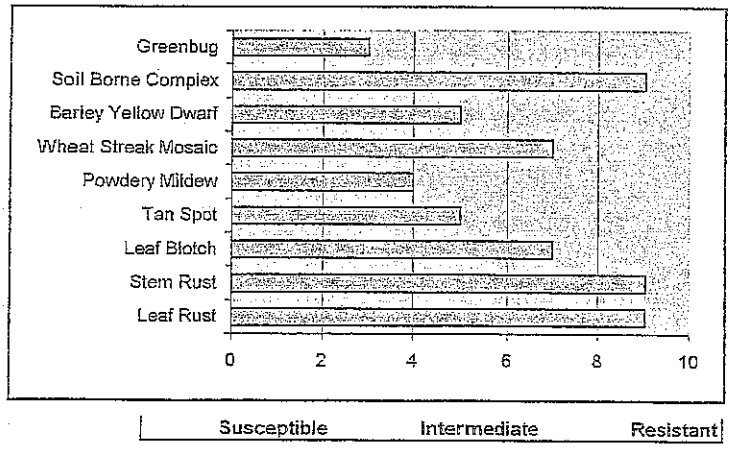
Variety Features	
Plant Height	semidwarf
Emergence	Average
Fall Cover	Average
Winter Survival	Very Good
Spring Cover	Medium
Coleoptile	Medium
Straw Strength	Excellent
Maturity	Medium

Head and Grain	
Type	Awned
Seed Size	Large
Test Weight	Very Good
Drydown	Quick
Shatter Tolerance	Good
Chaff Color	White
Quality	Excellent

Production Potential

- ★ Widely adapted
- ★ Excellent drought tolerance
- ★ Great disease package
- ★ Large kernels & top test weights
- ★ Excellent milling & baking quality





3-year (99,00,01) AgriPro Yield Summary across the Central Plains (25 locations)

	Yield	TW
Jagalene	63	60
Jagger	60	59
2137	54	58

Exhibit E.
Statement of the Basis of Applicant's Ownership

The variety for which Plant Variety Protection is hereby sought was developed by Dr. John Moffatt, an employee of AgriPro Wheat, a business unit of Advanta USA. By agreement between employees and AgriPro Wheat, all rights to any invention, discovery, or development made by the employee while employed by AgriPro Wheat, were assigned to AgriPro Wheat with no rights of any kind pertaining to 'Jagalene' being retained by the employees.

By contractual agreement the variety 'Jagalene' was purchased from AgriPro Wheat, a business unit of Advanta USA in June of 1996 and is currently owned by Monsanto Company.